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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/675,986

10/02/2003

Byoung-Gi Lee

K-017B

7790

34610 7590 03/22/2007  
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EXAMINER

TSE, YOUNG TOI

ART UNIT

PAPER NUMBER

2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/675,986		LEE ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	YOUNG T. TSE		2611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All   b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 20031002.
- 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: in the preliminary amendment to the specification on page 1 filed on September 14, 2005, the Applicants are requested to update the two U.S. Applications 10/112,935 and 09/045,943, now U.S. Patents 6,668,009 and 6,389,058, respectively. Appropriate correction is required.

### ***Claim Objections***

2. Claims 4 and 6-8 are objected to because of the following informalities:  
  
In claim 4, lines 2 and 3, "a SRGs" should be "SRGs".  
  
In claim 6, line 7, "and the spreading" should be "and spreading".  
  
In line 1 of both claims 7 and 8, "claimed in" should be "of".  
  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:  
  
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
4. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

According to the present invention, claims 1-8 are directly corresponded to the disclosure of the transmitter block 100 of Fig. 1A and the receiver block 200 of Fig. 1B. However, claims 1-8 contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 1, claim 1 recites a method comprising the steps of spreading and transmitting a state signal for a main shift register generator by an igniter sequence; and spreading and transmitting a data signal by a main sequence generated by the main shift register generator. As shown in Fig. 1A, the state signal is the output signal generated by the spreader 121 and the data signal is the output signal generated by the spreader 113. However, claim 1 fails to recite how are the state signal and the data signal derived from. In other words, the spreader 123 spreads an igniter sequence generated by the igniter 123 and a state sample value generated by the symbol generator 121 to provide the state signal, and the spreader 113 spreads a main sequence generated by the main generator 111 and an incoming data stream to provide the data signal. Further, the configuration of the step of "spreading and transmitting a state signal for a main shift register generator by an igniter sequence" does not correspond to the disclosure of Figs. 1A and 1B wherein the state signal is used for the receiver block 200 of Fig. 1B, If this is the case, the main shift register generator 111

used to generate the data signal is not the same as the main shift register generator used to generate the state signal, as recited in claim 1 (also see claim 2).

Regarding claims 2 and 8, both claims 2 and 8 are dependent claims of the independent claim 1 and related to the receiver clock 200 of Fig. 1B, however, the preamble of claim 1 recites a method for performing a fast acquisition of a PN sequence in a transmitter only (Fig. 1A), not the receiver as shown in Fig. 1B. Further, in claim 2, "the main shift register generator" and "the main sequence" used in the receiver block 200 of Fig. 1B are not the same as "the main shift register generator" and "the main sequence" used in the transmitter block 100 of Fig. 1A.

Regarding claims 3-4 and 6-8, the claimed subject matter recited in claims 3-4 and 6-8 are not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 5, claim 5 is directly related to the disclosure of Fig. 1B. Again, as mentioned in claim 1 above, claim 5 also fails to recite how is the state signal derived from. In other words, the despreader 221 despreads the state signal and an igniter sequence generated by the igniter 223 as shown in Fig. 1B.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the preamble recites a method for performing a fast acquisition of a PN sequence in a transmitter, however, the receiving and despreading steps recited in the body of the claim do not achieve the goal of performing the fast acquisition of the PN sequence in the transmitter as recited in the preamble of the claim. Further, the step of spreading and transmitting a state signal and the step of spreading and transmitting a data signal lack cooperation or connection with each other.

The dependent claims 2-4 depend upon the independent claim 1.

In claim 5, the preamble recites a method for performing a fast acquisition of a PN sequence in a receiver, however, the receiving and despreading step recited in the body of the claim does not achieve the goal of performing the fast acquisition of the PN sequence in the receiver as recited in the preamble of the claim.

In claim 6 (lines 2 and 7-8), claim 7 (lines 1-2), and claim 8 (lines 2-4), the terms "the data signal", "the main sequence", "the transmitter", "the igniter sequence", "said the first igniter sequence", and "the first igniter sequence" all lack antecedent basis.

In claim 6, the steps of "reconfirming a synchronization state", "retracting an acquisition complete message" and "re-executing receiving and spreading a state signal" are not understood since there are no steps of "confirming a synchronization state", "tracting an acquisition complete message" and "executing receiving and spreading a state signal" recited in the precedent claim 5 which claim 6 depends.

Claim 7 lacks cooperation or connection with any of the steps recited in the precedent claim 1.

In claim 8, the term "wherein receiving and synchronizing the first igniter sequence comprises" is not understood since the precedent claim 1 does not include the receiving and synchronizing step(s).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

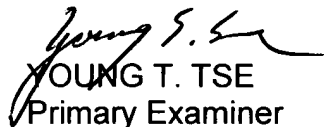
8. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura U.S. Patent No. 5,216,693.

Regarding claim 5, Nakamura discloses a spread spectrum transmitter in Fig. 9(a) and a spread spectrum receiver in Fig. 9(b), the correlater 35 in the spread spectrum receiver receiving and despreading a state signal (multiplexed state signal from one of the Exclusive OR gates of the spread spectrum transmitter) for a shift register generator 38 (Fig. 4 shows the detailed embodiment of a PN code generator comprising at least two shift register generators 3 and 4).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
YOUNG T. TSE  
Primary Examiner  
Art Unit 2611